

Abstract

Aluminium alloy containing Mg and Si, in particular useful for extrusion purposes
 5 containing in wt%:

	Mg	0,3 - 0,5
	Si	0,35 - 0,6
	Mn	0,02 - 0,08
	Cr	0,05
10	Zn	0,15
	Cu	0,1
	Fe	0.08 - 0,28 and
	in addition grain refining elements up to 0,1 wt% and	
	incidental impurities up to 0,15 wt%.	

The manganese (Mn), within the specified limits, has an additional positive effect on the extrudability of an AlMgSi alloy. In addition to promoting the transformation of the AlFeSi intermetallic phases, AlMnFeSi dispersoid particles are formed during homogenisation. These particles are acting as nucleation sites for Mg₂Si particles during cooling after homogenisation. In a high quality billet the Mg₂Si particles formed during cooling after homogenisation should easily dissolve during the preheating and the extrusion operation before the material reach the die opening.